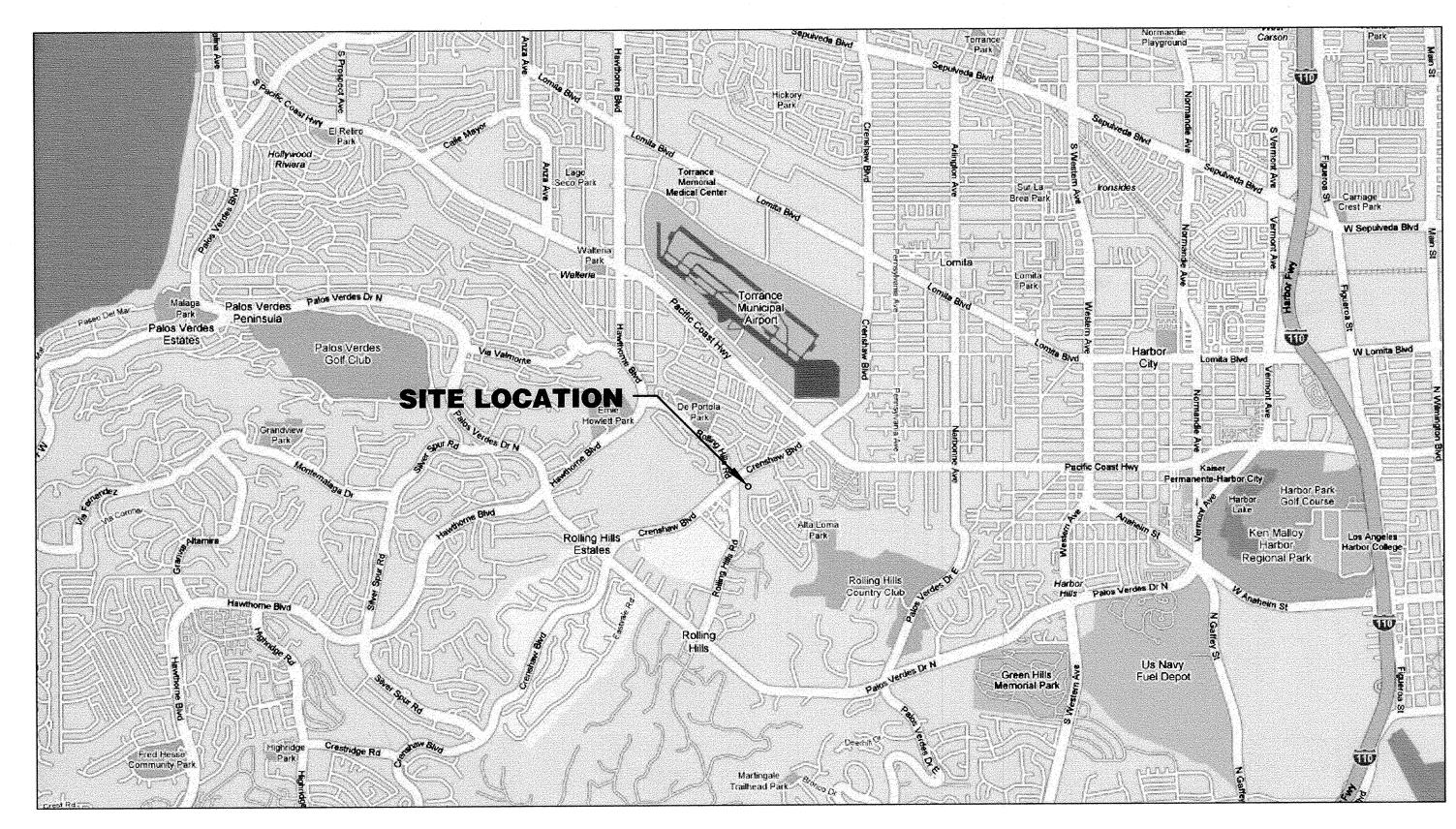
CITY OF TORRANCE SOIL NAILED WALL AT WALTERIA RESERVOIR CIP PROJECT I-95 FEBRUARY 2007



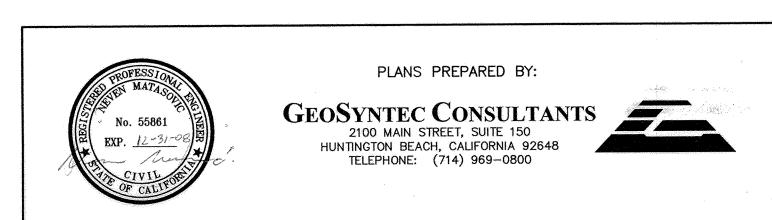
VICINITY MAP (N.T.S.)

LIST OF DRAWINGS

DRAWING	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
. 3	SITE PLAN (SOIL NAIL WALL, SCHEDULE "A")
. 4	CROSS-SECTIONS (SOIL NAIL WALL, SCHEDULE A)
5	SOIL NAIL WALL PLAN AND ELEVATIONS (SCHEDULE 'A")
6	TYPICAL WALL SECTION (SCHEDULE "A")
7	DETAILS ((SOIL NAIL WALL, SCHEDULE. "A')
8	IRRIGATION PLAN
9	BLOCK WALL PLAN AND PROFILE (SCHEDULE 'B')
10	BLOCK WALL CROSS SECTIONS (SCHEDULE"B")
11	REINFORCED COMPACTED FILL PLAN (SCHEDULE"C")
12	REINFORCED COMPACTED FILL SECTION (SCHEDULE "C")

TITLE SHEET

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	DATE	DESCRIPTION ADDED NOTES TO LIST OF DRAWINGS	BY	CHECKED	PROFESS/ONAL S. BILEZ CALLS	■ We contain the property of the containing the	ORRANCE S DEPARTMENT
		ADDED BLOCK WALL & GEOGRID MAT			No. 55339 Exp. 12/31/08	DRAWN:	APPROVED:
- 🔊	05/10	ALTERNATIVES - ADDED SHEET NUMBERS	V P V P	J D	OF CALIFORNIE	DESIGNED:	SBu 11 APR 07
		4				PROJECT ENGINEER: LIDD, P.E.	CRAIG S. BILEZERIAN DATE CITY ENGINEER R.C.E. NO. 55339 EXP. 12/31/08
						PROJECT . Julio John C. Dettle, P.E.	SCALE: AS SHOWN SHEET 1 OF 12 FINANCE WP-280



GENERAL NOTES

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AND SUPPLEMENTS THERETO, AS WRITTEN AND PROMULGATED BY PUBLIC WORKS STANDARDS, INC., HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS; THE TORRANCE STANDARDS; AND TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, VERIFY DEPTH AND PROTECT ALL STRUCTURES, INCLUDING SUBSTRUCTURES, SHOWN ON THE PLAN. THE CONTRACTOR SHALL BEAR THE ENTIRE COST OF REPAIRING OR REPLACING ANY OF SAID STRUCTURES DAMAGED BY HIM/HER DURING PROSECUTION OF THE WORK. ALL REPAIRS AND REPLACEMENTS SHALL BE DONE IN THE PRESENCE OF THE INSPECTOR. ALL LOCATIONS SHOWN ON THE PLAN FOR UTILITY LINES HAVE BEEN TAKEN FROM AVAILABLE RECORDS AND THEIR COMPLETENESS AND CORRECTNESS ARE IN NO WAY GUARANTEED.
- 3. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 1-800-227-2600 AND ALL PUBLIC UTILITY COMPANIES AND OWNERS OF PRIVATE FACILITIES WITHIN THE AREA OF CONSTRUCTION AT LEAST 2 WORKING DAYS IN ADVANCE OF PERFORMING ANY WORK WITHIN SAID AREA
- 4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY ENGINEER BEFORE COMMENCING WORK. TRAFFIC CONTROL WITHIN PUBLIC STREET RIGHTS OF WAY SHALL BE IN CONFORMANCE WITH THE "WORK AREA TRAFFIC CONTROL HANDBOOK," LATEST EDITION AND AN APPROVED TRAFFIC CONTROL PLAN, IF REQUIRED. THE CONTRACTOR SHALL PROVIDE A 24-HOUR TELEPHONE NUMBER FOR EMERGENCY REPAIRS TO TRAFFIC CONTROL AND PAVEMENT MARKINGS.
- CAUTION: REVIEW APPROVED CONSTRUCTION PLAN. IF CONSTRUCTION REQUIRES WORKERS AND /OR EQUIPMENT) TO BE WITHIN 6 FEET (OF) CRANES, OR HOISTING DEVICES TO BE WITHIN 10 FEET OF OVERHEAD ELECTRIC LINES, CALL SOUTHERN CALIFORNIA EDISON CO. AT 310-783-9339 FOR PROJECTS IN RESIDENTIAL AREAS OR 310-783-9331 FOR PROJECTS IN COMMERCIAL AREAS.
- 6. PRIOR TO COMMENCEMENT OF WORK, ALL SURVEY MONUMENTS IN THE PROJECT AREA SHALL BE LOCATED AND TIED OUT. ALL CENTERLINE MONUMENTS OR TIES LOST OR DESTROYED BY THIS WORK SHALL BE REPLACED EITHER BY A LICENSED SURVEYOR OR A CIVIL ENGINEER REGISTERED PRIOR TO JANUARY 1982 AND NEW TIE SHEETS PROVIDED. METHOD OF ESTABLISHMENT SHALL BE STATED ON THE TIE SHEET.
- 7. CONTRACTOR SHALL MAKE AVAILABLE FOR THE INSPECTOR'S REVIEW, ON A DAILY BASIS, AS-BUILT DRAWINGS FOR WORK PERFORMED UP TO AND INCLUDING THE PREVIOUS DAY'S ACTIVITIES. WORK SHALL NOT BE CONSIDERED AS COMPLETE AND APPROVED FOR PAYMENT UNTIL AS-BUILTS ARE SUBMITTED TO AND ACCEPTED BY THE PUBLIC WORKS DIRECTOR.
- 8. ALL CONCRETE SIDEWALKS OR CURBS & GUTTERS TO BE REPLACED SHALL BE SAWCUT TO THE NEAREST TRANSVERSE SCORE MARK OR ADJUSTABLE CONTROL JOINT OR WEAKENED PLANE JOINT AND REPLACED TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR. ALL EXPOSED CONCRETE SURFACES SHALL CONFORM IN GRADE, COLOR AND FINISH TO ALL ADJOINING CURBS AND WALKS.
- 9. THE PLANS DO NOT SHOW GAS, WATER, AND SEWER SERVICES. THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL GAS, WATER, AND SEWER SERVICE LOCATIONS AND PROTECT IN PLACE.
- 10. THE CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A NEAT, SAFE, CLEAN AND SANITARY CONDITION AT ALL TIMES, AND TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR, STREETS SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY CLEANUP ON ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION. CONTRACTOR TO CLEAN STREET WITH SWEEPER PRIOR TO THE END OF EACH WORK DAY AS A MINIMUM.
- 11. SURPLUS AND MATERIAL REMOVED WHICH IS NOT SUITABLE FOR USE IN THIS PROJECT OR CLAIMED BY THE CITY IN THE SPECIFICATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO ALL CONTROLLING
- 12. ALL APPROACHES TO PRIVATE DRIVEWAYS. DRIVEWAYS AND INTERSECTING STREETS SHALL BE KEPT OPEN TO TRAFFIC AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE ENGINEER. CONTRACTOR SHALL INFORM ALL PROPERTY OWNERS OR BUSINESSES A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY CONSTRUCTION WHICH WILL IMPEDE THE NORMAL ACCESS TO THEIR DRIVEWAYS.
- 13. THE CONTRACTOR SHALL RENEW OR REPLACE ANY EXISTING TRAFFIC STRIPING AND/OR PAVEMENT MARKINGS WHICH DURING HIS OPERATIONS AS DETERMINED BY THE PUBLIC WORKS DIRECTOR HAVE BEEN EITHER REMOVED OR THE EFFECTIVENESS HAS BEEN REDUCED.
- A 14. CONTRACTOR SHALL NOTIFY AFFECTED CUSTOMERS A MINIMUM OF 48 HOURS IN ADVANCE OF ANY SHUTDOWN.

DETAIL IDENTIFICATION LEGEND

Sheet on Which Above Detail is Presented



16/

Sheet on Which Above Detail was Referenced

Detail Number -

Example: Detail Number 2 Presented on Sheet No. 16 was Referenced on Sheet No. 5.

NOTES: ABOVE REFERENCING SYSTEM ALSO APPLIES TO SECTION IDENTIFICATIONS.

SOIL NAIL WALL MATERIAL SPECIFICATIONS

1. SOIL NAILS

- 1.1. SOIL NAIL BARS SHALL BE ASTM A615, GRADE 75 SOLID DEFORMED BAR NAIL BAR SHALL BE NEW, STRAIGHT AND ENCAPSULATED. SOLID BAR TENDONS SHALL BE THREADED A MINIMUM OF 12 INCHES ON WALL ANCHORAGE END TO ALLOW PROPER ATTACHMENT OF BEARING PLATE AND NUT. THREADING MAY BE CONTINUOUS SPIRAL DEFORMED RIBBING PROVIDED BY THE BAR DEFORMATIONS (E.G., DYWIDAG OR WILLIAMS CONTINUOUS THREADBARS OR EQUAL).
- 1.2. NAIL GROUT SHALL BE COMPRISED OF NEAT PORTLAND CEMENT (TYPE I OR II) CONFORMING TO ASTM C150 AND FINE AGGREGATE CONFORMING TO ASTM C33. NAIL GROUT SHALL EXHIBIT A MINIMUM THREE-DAY COMPRESSIVE STRENGTH OF 1,500 PSI AND A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI PER ASTM C109.
- 1.3. SOIL NAIL CENTRALIZERS SHALL BE MANUFACTURED FROM SCHEDULE 40 PVC PIPE OR TUBE, STEEL OR OTHER MATERIAL NOT DETRIMENTAL TO THE NAIL STEEL. CENTRALIZERS SHALL BE SECURELY ATTACHED TO THE ENCAPSULATED NAIL BAR. THEY SHALL BE SIZED TO POSITION THE NAIL WITHIN 1.5 INCHES OF THE CENTER OF THE DRILL HOLE; SIZED TO ALLOW TREMIE PIPE INSERTION TO THE BOTTOM OF THE DRILLHOLE; AND SIZED TO ALLOW GROUT TO FREELY FLOW UP THE DRILL HOLE.

2. NAIL HEAD ASSEMBLY

- 2.1. BEARING PLATES SHALL CONFORM TO ASTM A572 GRADE 50
- 2.2. NUTS SHALL CONFORM TO AASHTO M291, GRADE B, HEXAGONAL, FITTED WITH A BEVELED WASHER OR SPHERICAL SEAT TO PROVIDE UNIFORM
- 2.3. TRUMPET SHALL BE FABRICATED FROM STEEL PIPE OR TUBING CONFORMING TO THE REQUIREMENTS OF ASTM A53 FOR PIPE OR A500 FOR TUBING. TRUMPET SHALL HAVE A MINIMUM WALL THICKNESS OF 0.25

SHOTCRETE

- 3.1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM-615, GRADE 75. LAP SPLICE LENGTHS OF #4 BARS SHALL BE 24-INCH MINIMUM.
- 3.2. WELDED WIRE FABRIC SHALL BE PLAIN OR DEFORMED CONFORMING TO ASTM A185 GRADE 75. SPLICES OF WELDED WIRE FABRIC SHALL BE 6-INCH MINIMUM MEASURED BETWEEN THE OUTERMOST CROSS WIRES OF EACH FABRIC SHEET.
- 3.3. SHOTCRETE SHALL DEVELOP A COMPRESSIVE STRENGTH OF 2,000 PSI AT 3 DAYS AND 4,000 PSI AT 28 DAYS, RESPECTIVELY.
- 3.4. SHOTCRETE SHALL BE MADE W/ ASTM C150 TYPE I OR II PORTLAND

4. WALL DRAINAGE

- 4.1. GEOCOMPOSITE DRAIN STRIP SHALL BE MIRAFI 6000, AMERIDRAIN 500 OR APPROVED EQUIVALENT
- 4.2. GEOTEXTILE FOR DRAIN STRIP SHALL CONFORM TO AASHTO 288, CLASS 3, PERMITIVITY 0.2 PER SECOND (MINIMUM) AND AOS 0.01 INCHES (MAXIMUM).
- 4.3. WALL DRAIN PIPE SHALL CONFORM TO ASTM D1785 SCHEDULE 40 PVC, SOLID AND PERFORATED WALL, CELL CLASSIFICATION 12454-B OR 12354-C. WALL THICKNESS SDR 35, WITH SOLVENT WELD OR ELASTOMERIC
- 4.4. WALL DRAIN PIPE FITTINGS SHALL CONFORM TO ASTM D3034, CELL CLASSIFICATION 12454-B OR 12454-C, WALL THICKNESS SDR 35, WITH SOLVENT WELD OR ELASTOMERIC GASKET JOINTS.
- 4.5. WALL DRAIN PIPE SOLVENT CEMENT SHALL CONFORM TO ASTM D2564
- 4.6. WALL DRAIN PIPE PRIMER SHALL CONFORM TO ASTM F656.

SOIL NAIL TESTING PROCEDURE

- 1. PERFORM THREE (3) VERIFICATION TESTS AND PERFORM PROOF TESTS ON 5% OF TOTAL NUMBER OF PRODUCTION NAILS AND A MINIMUM OF ONE (1) IN EACH ROW.
- 2. PERFORM NAIL TESTING AFTER GROUT AND CONCRETE FACING HAVE CURED FOR AT LEAST 72 HOURS AND ATTAINED THEIR SPECIFIED THREE-DAY COMPRESSIVE

3. PRE-PRODUCTION VERIFICATION TESTING

PRE-PRODUCTION VERIFICATION TESTING SHALL BE PERFORMED PRIOR TO INSTALLATION OF PRODUCTION NAILS TO VERIFY THE INSTALLATION METHODS AND NAIL PULL-OUT RESISTANCE. VERIFICATION TESTS WILL BE PERFORMED AT THE FOLLOWING GENERAL LOCATIONS.

- A. IN THE VICINITY OF NAIL NO. 65; ONLY THE LOWER 10 FEET OF THE NAIL SHALL BE BONDED. THE DESIGN TEST LOAD (DTL) WILL BE 18 KIPS.
- B. IN THE VICINITY OF NAIL NO. 85; ONLY THE LOWER 10 FEET OF THE NAIL SHALL BE BONDED. THE DESIGN TEST LOAD (DTL) WILL BE 18 KIPS.
- C. IN THE VICINITY OF NAIL NO. 100; ONLY THE LOWER 10 FEET OF THE NAIL SHALL BE BONDED. THE DESIGN TEST LOAD (DTL) WILL BE 18 KIPS.

VERIFICATION TEST NAILS SHALL BE INCREMENTALLY LOADED TO A MAXIMUM TEST LOAD OF 300 PERCENT (300%) OF THE DESIGN TEST LOAD (DTL) IN ACCORDANCE WITH THE FOLLOWING LOADING SCHEDULE. THE SOIL NAIL MOVEMENTS SHALL BE RECORDED AT EACH LOAD INCREMENT:

VERIFICATION TEST LOADING SCHEDULE HOLD TIME 0.05 DTL max.(AL) 1 minute 0.25 DTL 10 minutes 0.50 DTL 10 minutes 0.75 DTL 10 minutes 1.00 DTL 10 minutes 1.25 DTL 10 minutes 1.50 DTL (Creep Test) 60 minutes 1.75 DTL 10 minutes 2.00 DTL 10 minutes

3.0 DTL or Failure 10 minutes max. 0.05 DTL max. (AL) 1 minute (record permanent set)

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS AND SHOULD NOT EXCEED 5 PERCENT (5%) OF THE DESIGN TEST LOAD (DTL). DIAL GAUGES SHOULD BE SET TO 'ZERO' AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

10 minutes max.

EACH LOAD INCREMENT SHALL BE HELD FOR AT LEAST 10 MINUTES. THE VERIFICATION TEST NAIL SHALL BE MONITORED FOR CREEP AT THE 1.50 DTL LOAD INCREMENT. NAIL MOVEMENTS DURING THE CREEP PORTION OF THE TEST SHALL BE MEASURED AND RECORDED AT 1 MINUTE, 2, 3, 5, 6, 10, 20, 30, 50, AND 60 MINUTES. THE LOAD DURING THE CREEP TEST SHALL BE MAINTAINED WITHIN 2 PERCENT OF THE INTENDED LOAD BY USE OF THE LOAD CELL.

UTILITY CONTACT INFORMATION

COUNTY SANITATION DISTRICT P.O. BOX 4998 WHITTIER, CA 90601

2.50 DTL

CALIFORNIA WATER SERVICE DOMINGUEZ WATER COMPANY 2632 W. 237TH STREET TORRANCE, CA 90505

L.A. COUNTY PUBLIC WORKS ROAD DEPARTMENT 900 S. FREMONT AVENUE ALHAMBRA, CA 91803

LADWP-JOINT LOCATION P.O. BOX 51111 LOS ANGELES, CA 90051-0100

PACIFIC BELL 41 S. CHESTER AVENUE ROOM 202 PASADENA, CA 91106

SOUTHERN CALIFORNIA EDISON 1241 S. GRAND AVENUE SANTA ANA, CA 92705

SCE FUEL OPERATIONS 2650 W, LOMITA BOULEVARD TORRANCE, CA 90505

SOUTHERN CALIFORNIA GAS P.O. BOX 3334 ANAHEIM, CA 92806-3334

WEST BASIN MUNICIPAL WATER DISTRICT 17140 S. AVALON BOULEVARD SUITE 310 CARSON, CA 90746-1218

ABBREVIATIONS

C.I.P. = CAST IN PLACE

STA = STATION

B.O. = BOTTOM OF

T.O. = TOP OF

AC = ASPHALT CONCRETE

UNDERGROUND SERVICE ALERT CALL: TOLL FREE 1-800-227-2600 TWO WORKING DAYS

BEFORE YOU DIG

4. PROOF-TESTING OF PRODUCTION NAILS

- 4.1. DESIGN TEST LOAD (DTL) SHALL BE 18 KIPS FOR NAIL BONDED LENGTH OF 10
- 4.2. PROOF TESTS SHALL BE PERFORMED BY INCREMENTALLY LOADING THE PROOF TEST NAIL TO A MAXIMUM TEST LOAD OF 150 PERCENT (150%) OF THE DESIGN TEST LOAD (DTL). THE NAIL MOVEMENT AT EACH LOAD SHALL BE MEASURED AND RECORDED BY THE ENGINEER IN THE SAME MANNER AS FOR VERIFICATION TESTS. THE TEST LOAD SHALL BE MONITORED BY A JACK PRESSURE GAUGE WITH A SENSITIVITY AND RANGE MEETING THE REQUIREMENTS OF PRESSURE GAUGES USED FOR VERIFICATION TEST NAILS. AT LOAD INCREMENTS OTHER THAN MAXIMUM TEST LOAD, THE LOAD SHALL BE HELD LONG ENOUGH TO OBTAIN A STABLE READING. INCREMENTAL LOADING FOR PROOF TESTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING LOADING SCHEDULE. THE SOIL NAIL MOVEMENT SHALL BE RECORDED AT EACH LOAD INCREMENT.

PROOF TEST LOADING SCHEDULE

HOLD TIME LOAD 0.05 DTL max. (AL) Until Movement Stabilizes Until Movement Stabilizes 0.25 DTL 0.50 DTL Until Movement Stabilizes Until Movement Stabilizes 0.75 DTL Until Movement Stabilizes 1.00 DTL Until Movement Stabilizes 1.25 DTL 1.50 DTL (Max. Test Load) Creep Test (see below)

"ZERO" AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

ALL LOAD INCREMENTS SHALL BE MAINTAINED WITHIN 5 PERCENT OF THE INTENDED LOAD. 60-MINUTE CREEP TESTS SHALL BE PERFORMED AT THE MAXIMUM TEST LOAD (1.50 DTL). THE CREEP PERIOD SHALL START AS SOON AS THE MAXIMUM TEST LOAD IS APPLIED AND THE NAIL MOVEMENT SHALL BE MEASURED AND RECORDED AT 1 MINUTE, 2, 3, 5, 6, AND 10 MINUTES. WHERE THE NAIL MOVEMENT BETWEEN 1 MINUTE AND 10 MINUTES EXCEEDS 1 mm, THE MAXIMUM TEST LOAD SHALL BE MAINTAINED AN ADDITIONAL 50 MINUTES AND MOVEMENTS SHALL BE RECORDED AT 20 MINUTES, 30, 50, AND 60 MINUTES.

5. TEST NAIL ACCEPTANCE CRITERIA

5.1. A TEST NAIL SHALL BE CONSIDERED ACCEPTABLE WHEN:

5.1.1. FOR VERIFICATION TESTS, THE TOTAL CREEP MOVEMENT IS LESS THAN 0.08 IN. (2 MM) BETWEEN THE 6- AND 60-MINUTE READINGS AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD.

5.1.2. FOR PROOF TESTS, THE TOTAL CREEP MOVEMENT IS LESS THAN 0.04 IN. (1 MM) DURING THE 10-MINUTE READINGS OR THE TOTAL CREEP MOVEMENT IS LESS THAN 0.08 IN. (2 MM) DURING THE 60-MINUTE READINGS AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD.

5.1.3. FOR VERIFICATION AND PROOF TESTS, THE TOTAL MEASURED MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS 80 PERCENT OF THE THEORETICAL ELASTIC ELONGATION OF THE TEST NAIL UNBONDED LENGTH.

5.1.4. A PULLOUT FAILURE DOES NOT OCCUR AT 3.0 DTL UNDER VERIFICATION TESTING AND 1.5 DTL TEST LOAD UNDER PROOF TESTING. PULLOUT FAILURE IS DEFINED AS THE INABILITY TO FURTHER INCREASE THE TEST LOAD WHILE THERE IS CONTINUED PULLOUT MOVEMENT OF THE TEST NAIL. RECORD THE PULLOUT FAILURE LOAD AS PART OF THE TEST DATA.

. THE TOTAL MEASURED MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS EIGHTYPERCENT (80%) OF THE THEORETICAL ELASTIC ELONGATION OF THE TEST NAIL

5.1.6. A PULL-OUT FAILURE DOES NOT OCCUR AT THE MAXIMUM TEST LOAD. PULL-OUT FAILURE IS DEFINED AS THE LOAD AT WHICH ATTEMPTS TO FURTHER INCREASE THE TEST LOAD SIMPLY RESULT IN CONTINUED PULLOUT MOVEMENT OF THE TEST NAIL. THE PULLOUT FAILURE LOAD SHALL BE RECORDED AS PART OF THE TEST DATA.

5.2 SUCCESSFUL PROOF-TESTED NAILS MEETING THE ABOVE TEST ACCEPTANCE CRITERIA MAY BE INCORPORATED AS PRODUCTION NAILS, PROVIDED THAT:

5.2.1. THE UNBONDED LENGTH OF THE TEST NAIL DRILLHOLE HAS NOT COLLAPSED DURING TESTING.

5.2.2. THE MINIMUM REQUIRED DRILLHOLE DIAMETER HAS BEEN MAINTAINED.

5.2.3. THE SPECIFIED CORROSION PROTECTION IS PROVIDED.

5.2.4. THE TEST NAIL LENGTH IS EQUAL TO OR GREATER THAN THE SCHEDULED PRODUCTION NAIL LENGTH. TEST NAILS MEETING THESE REQUIREMENTS SHALL BE COMPLETED BY SATISFACTORILY GROUTING UP THE UNBONDED TEST LENGTH MAINTAINING THE TEMPORARY UNBONDED TEST LENGTH FOR SUBSEQUENT GROUTING IS THE CONTRACTOR'S RESPONSIBILITY. IF THE UNBONDED TEST LENGTH OF PRODUCTION PROOF TEST NAILS CANNOT BE SATISFACTORILY GROUTED SUBSEQUENT TO TESTING, THE PROOF TEST NAIL SHALL BECOME SACRIFICIAL AND SHALL BE REPLACED AT NO ADDITIONAL COST.

GENERAL NOTES

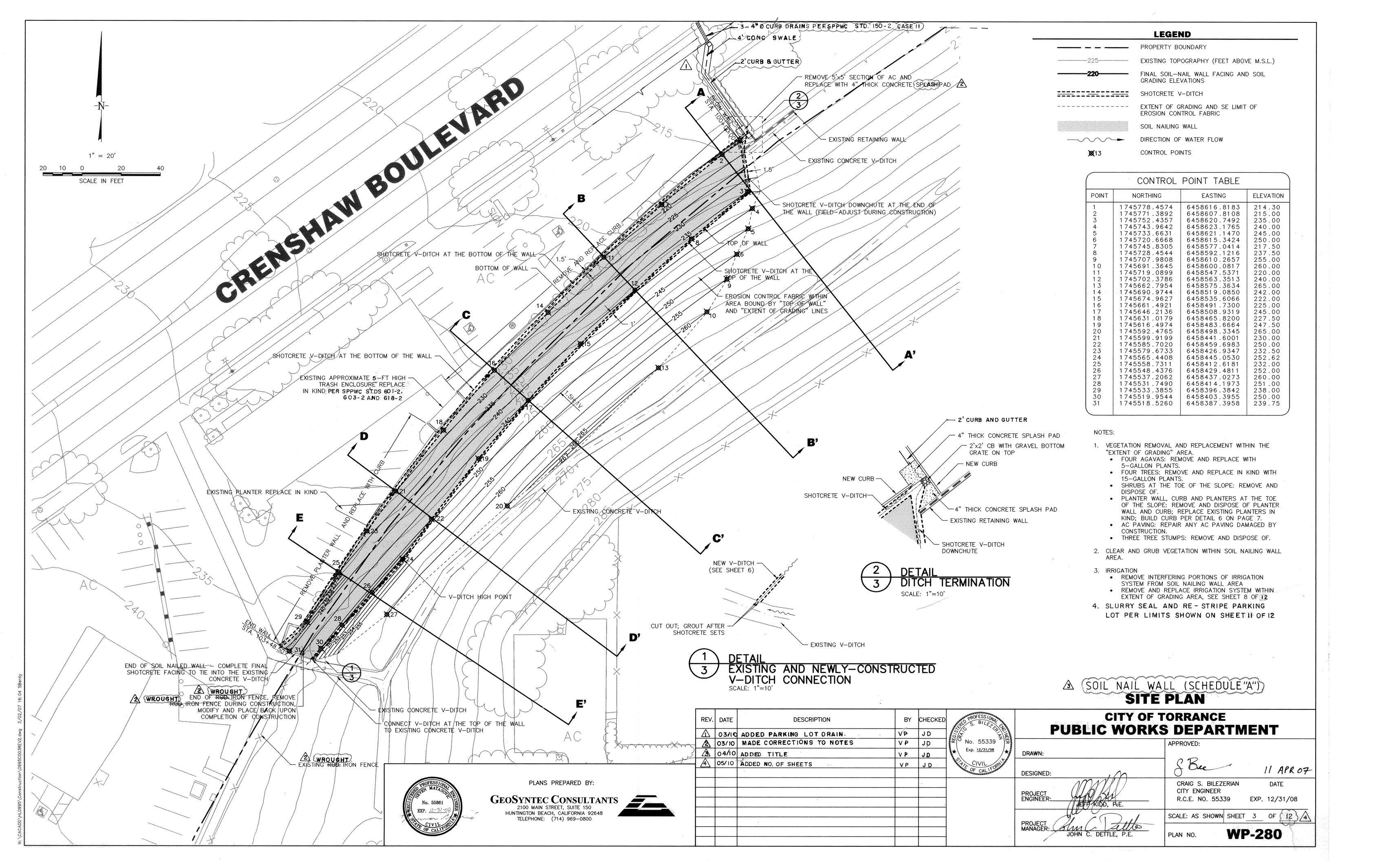
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+						ENGINEER: JEFF KIDD, P.E.	R.C.E. NO. 55339 EXP. 12/31/08 SCALE: AS SHOWN SHEET 2 OF 12 1
						PROJECT JOHN C. DETTLE, P.E.	PLAN NO. WP-280

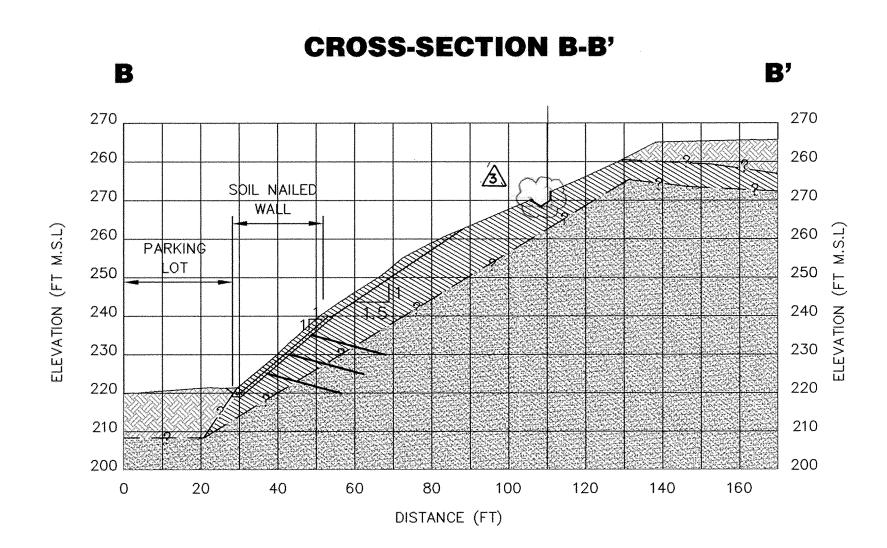


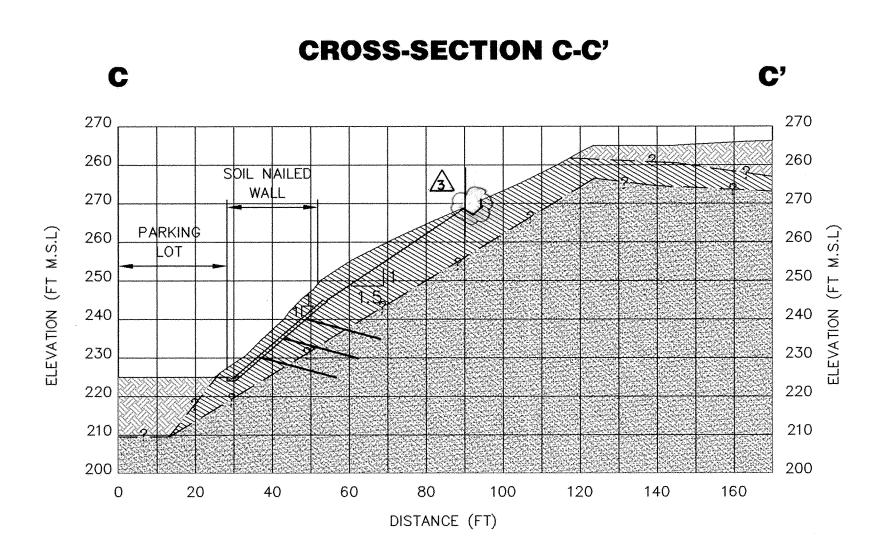
PLANS PREPARED BY:

2100 MAIN STREET, SUITE 150

GEOSYNTEC CONSULTANTS HUNTINGTON BEACH, CALIFORNIA 92648 TELEPHONE: (714) 969-0800







PROFESSION MATASOLDER

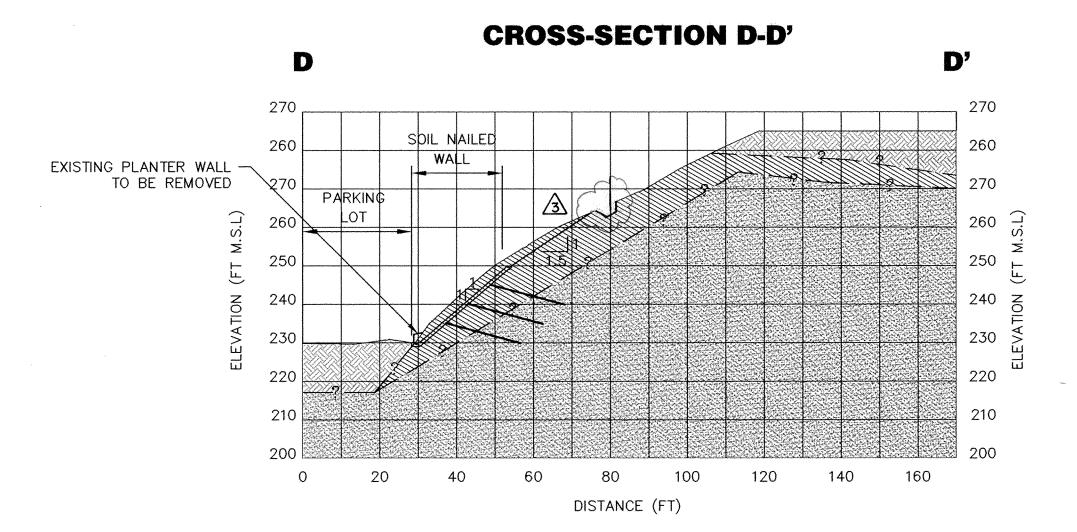
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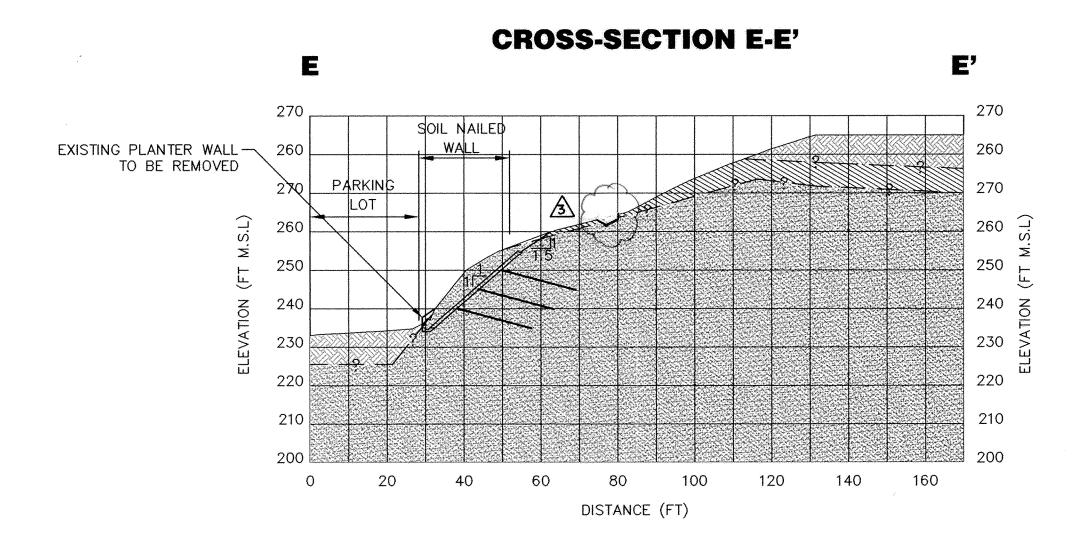
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PLANS PREPARED BY:

GEOSYNTEC CONSULTANTS
2100 MAIN STREET, SUITE 150
HUNTINGTON BEACH, CALIFORNIA 92648
TELEPHONE: (714) 969-0800



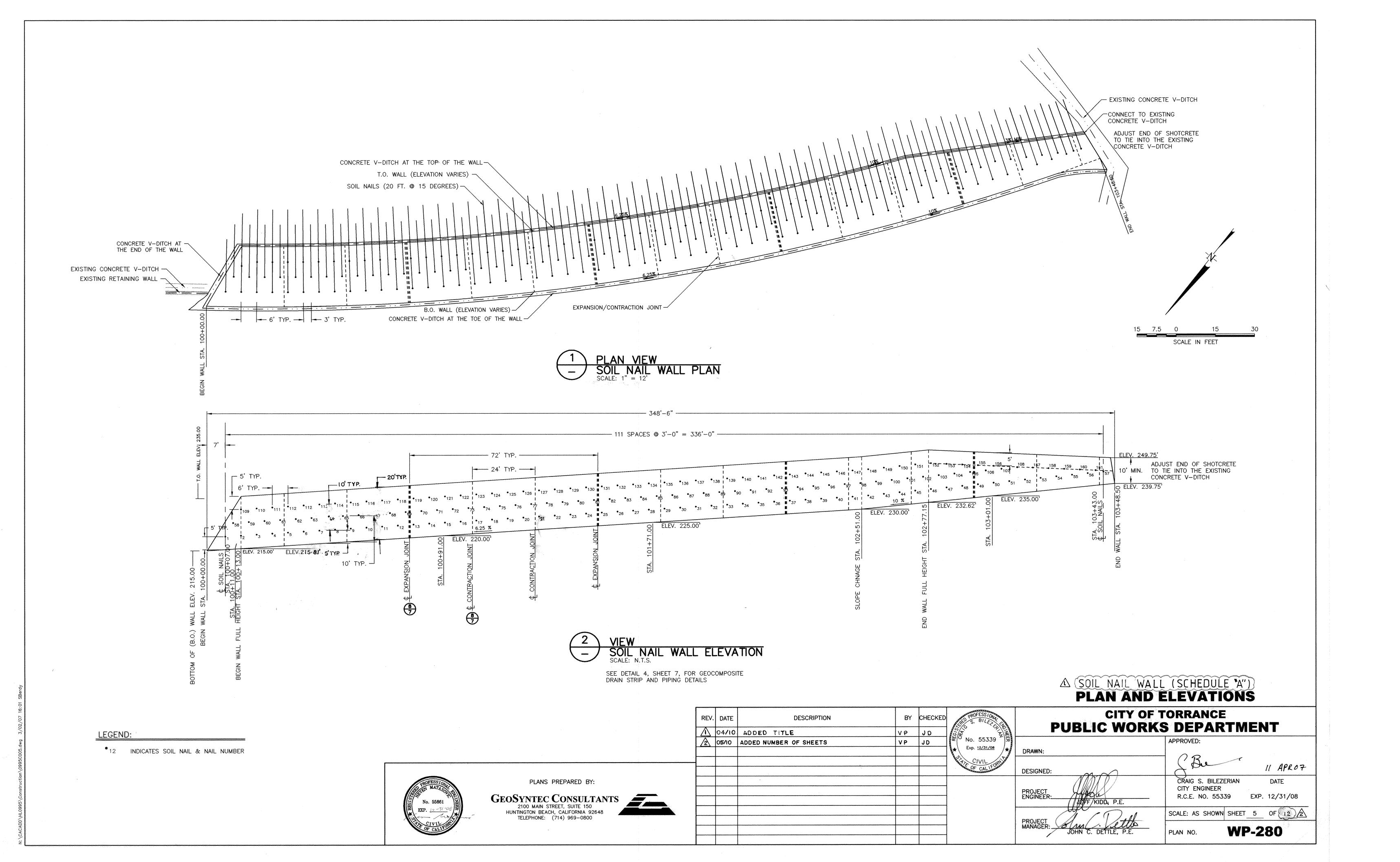


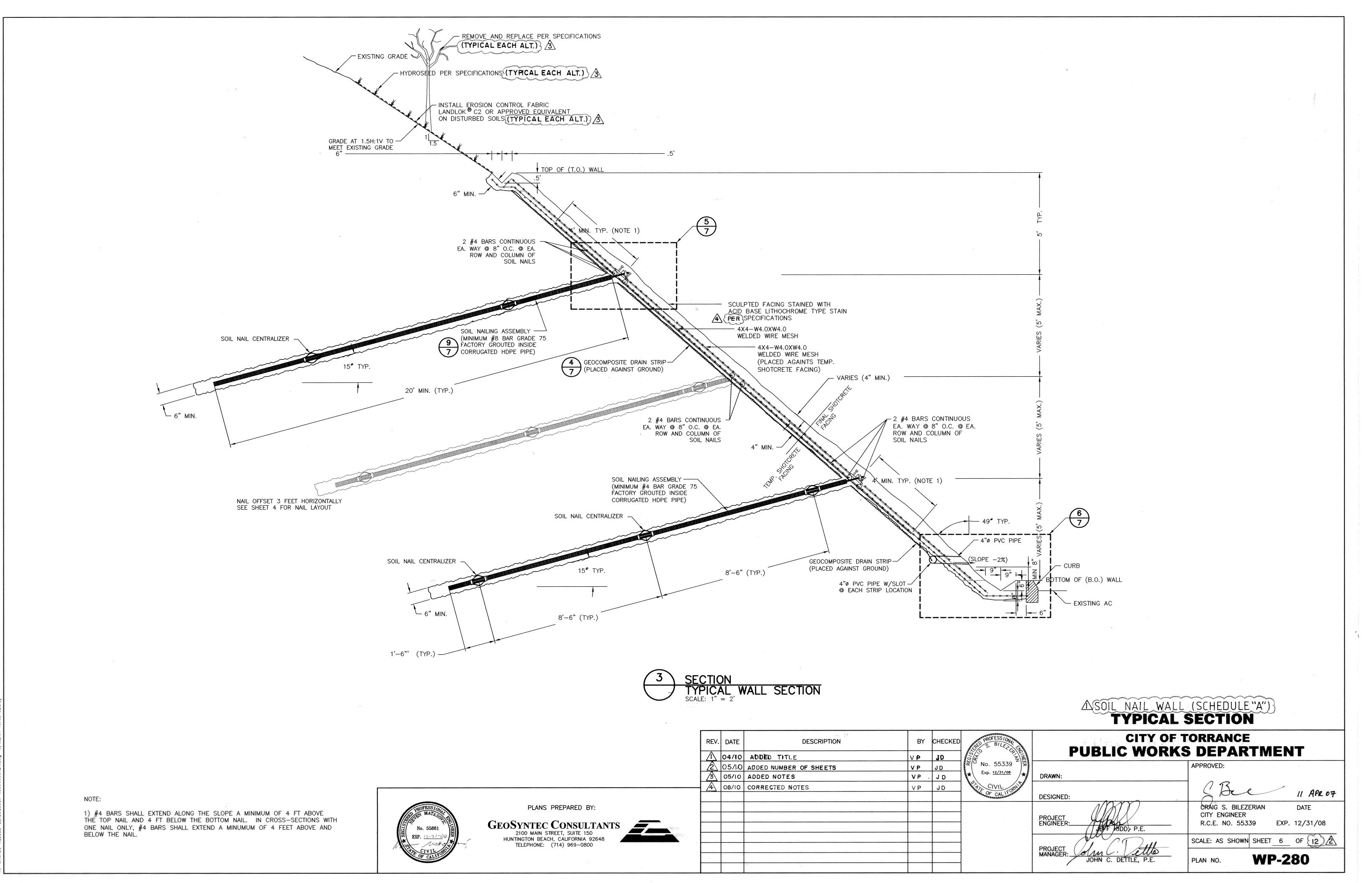
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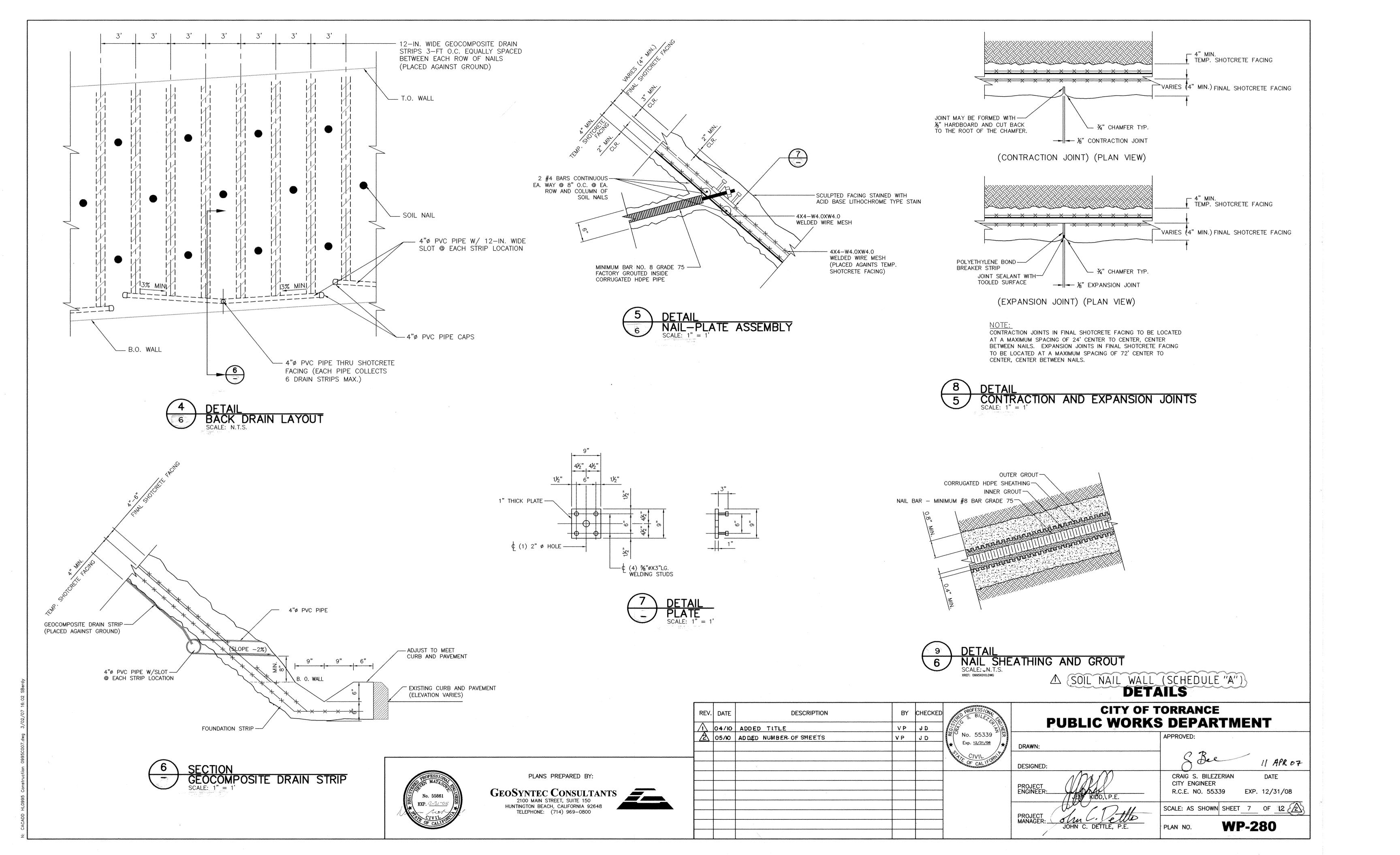
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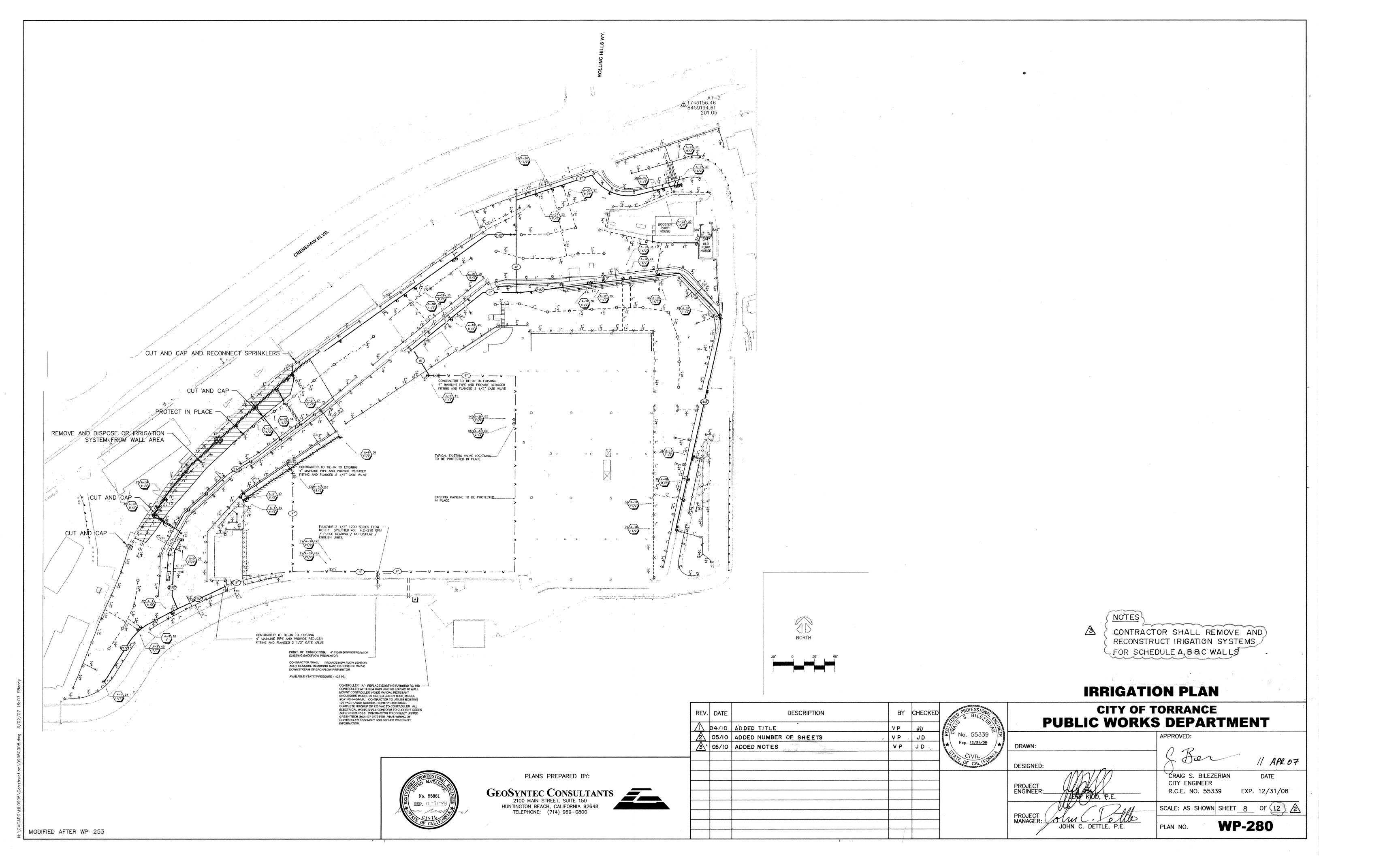
NOTE:
SUBSURFACE PROFILES ARE BASED UPON GEOTECHNICAL INVESTIGATION
REPORT [LEIGHTON 2005] AS FOUND IN THE PROJECT SPECIAL)
PROVISION APPENDICES.

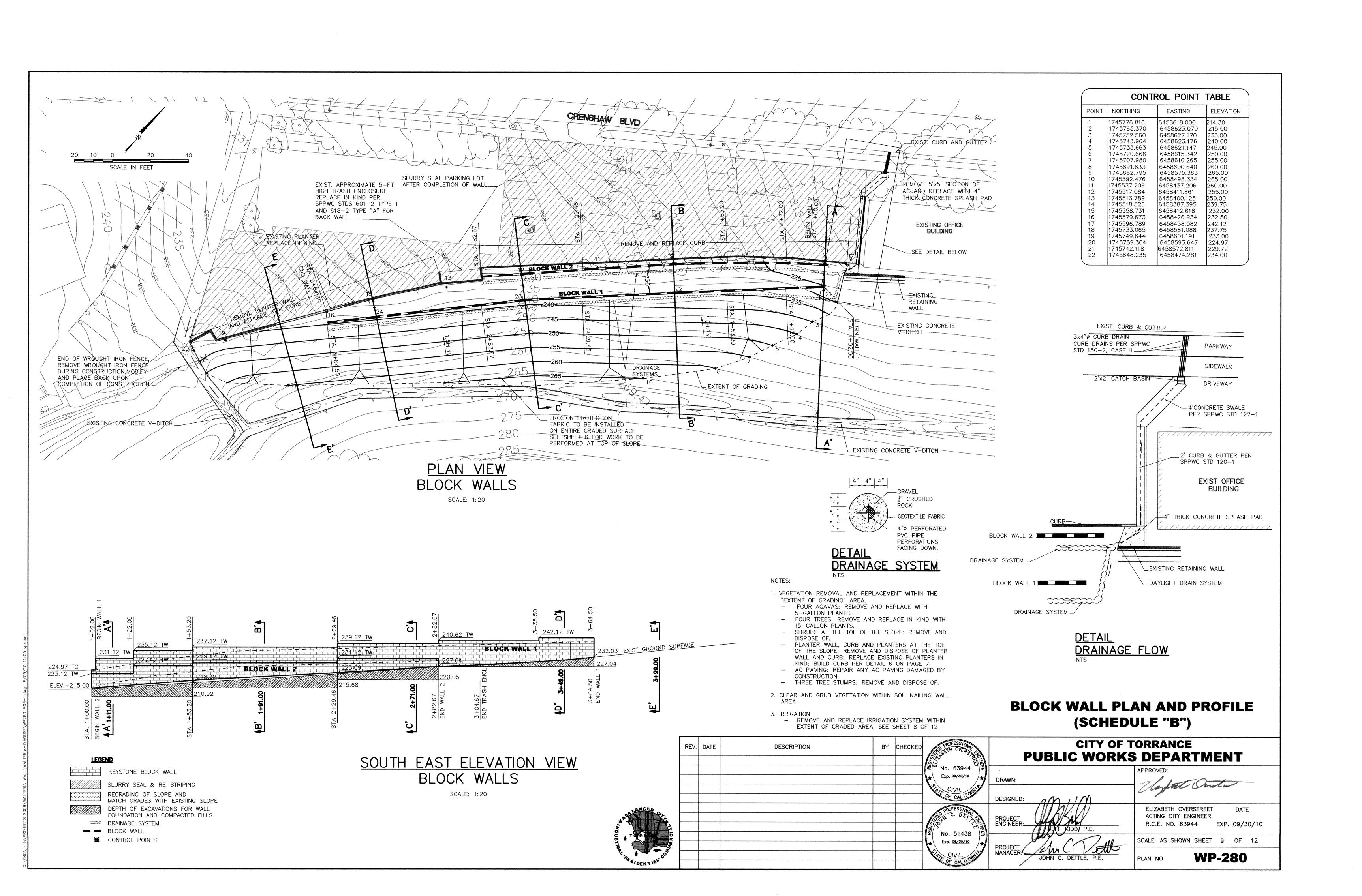


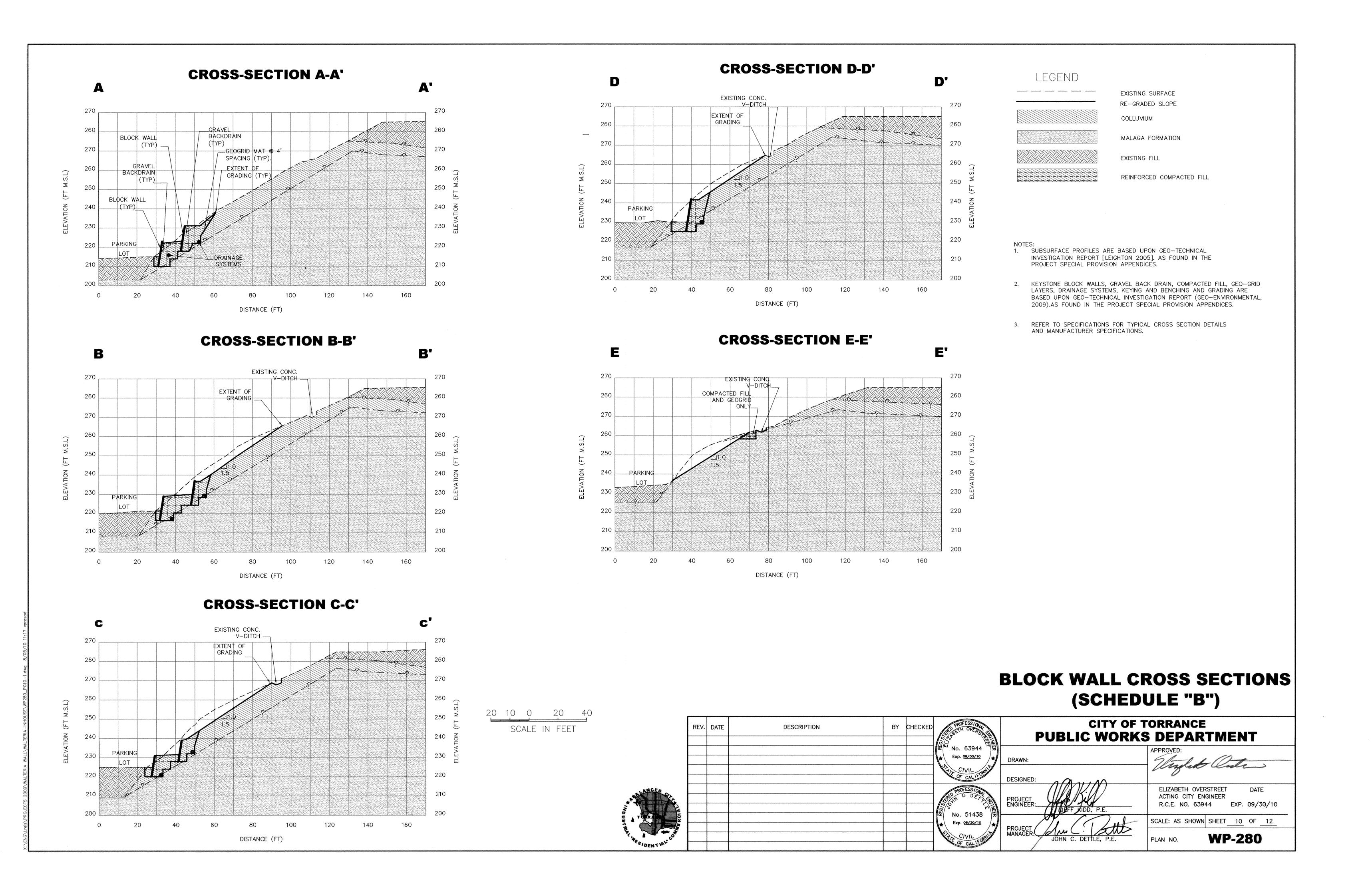


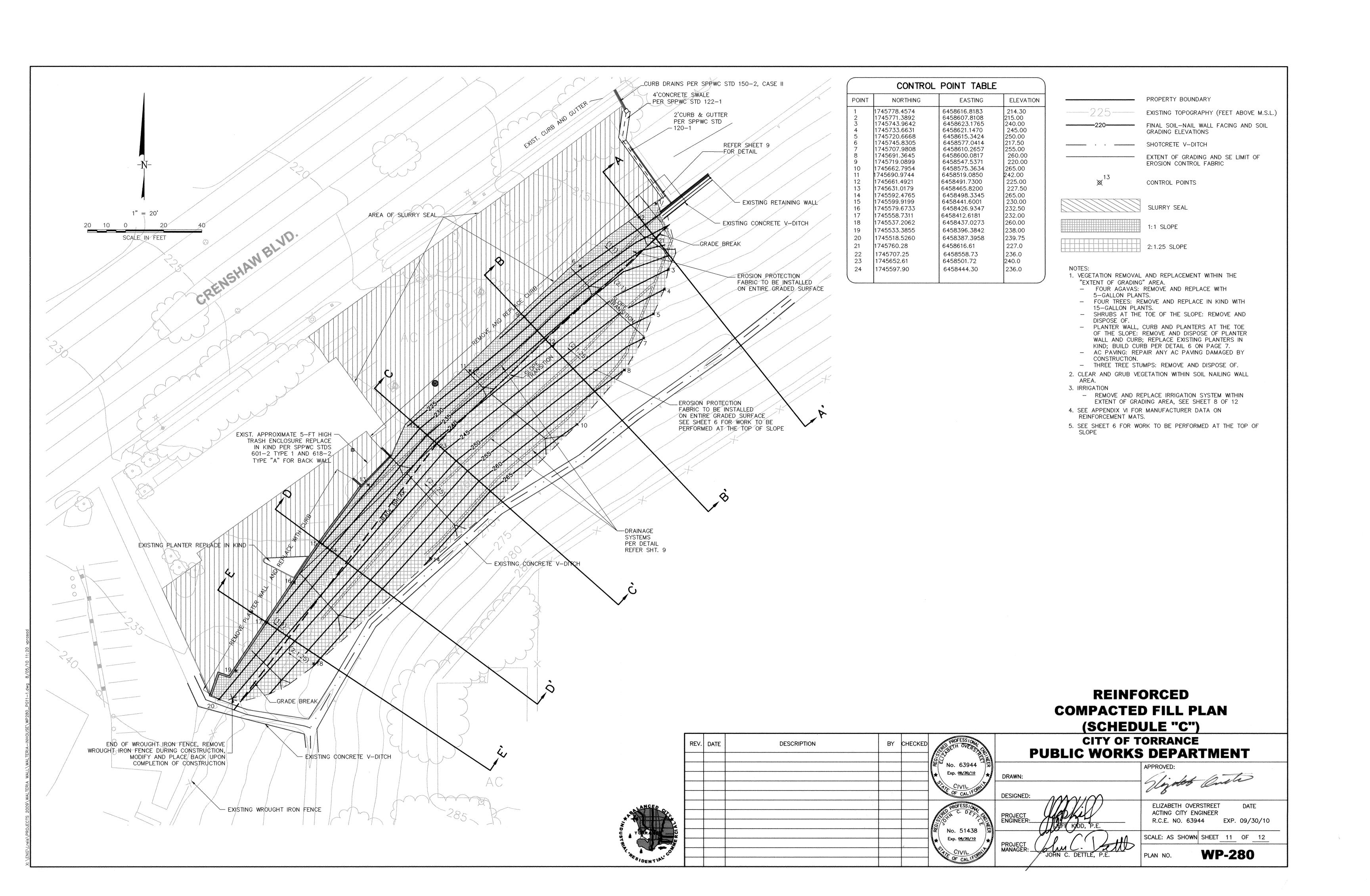
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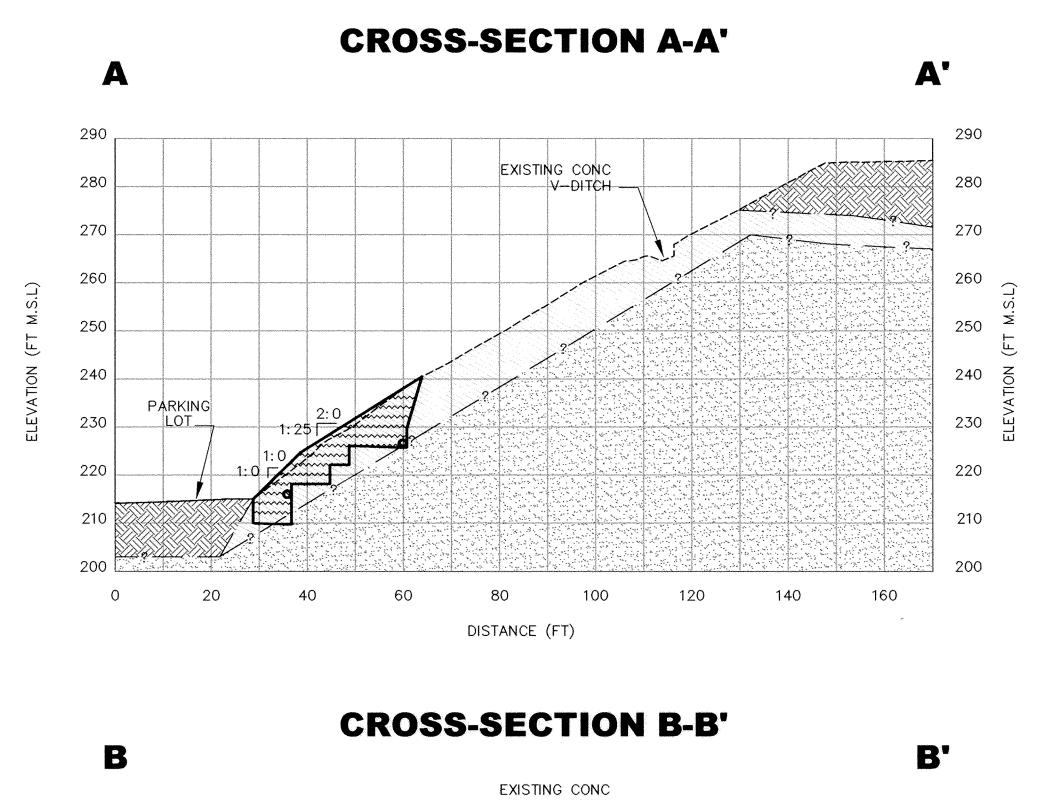


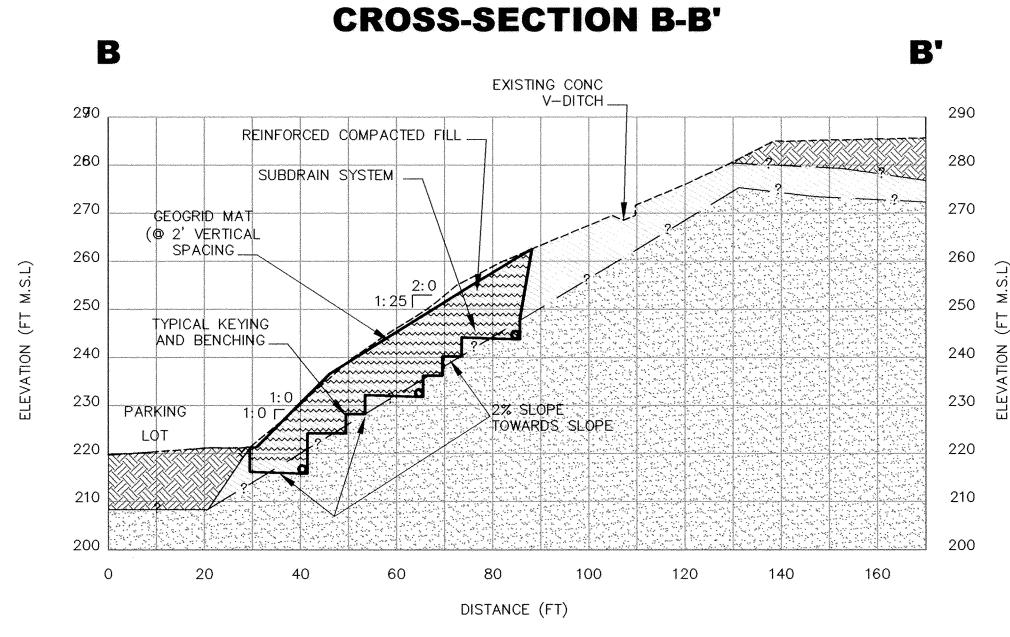


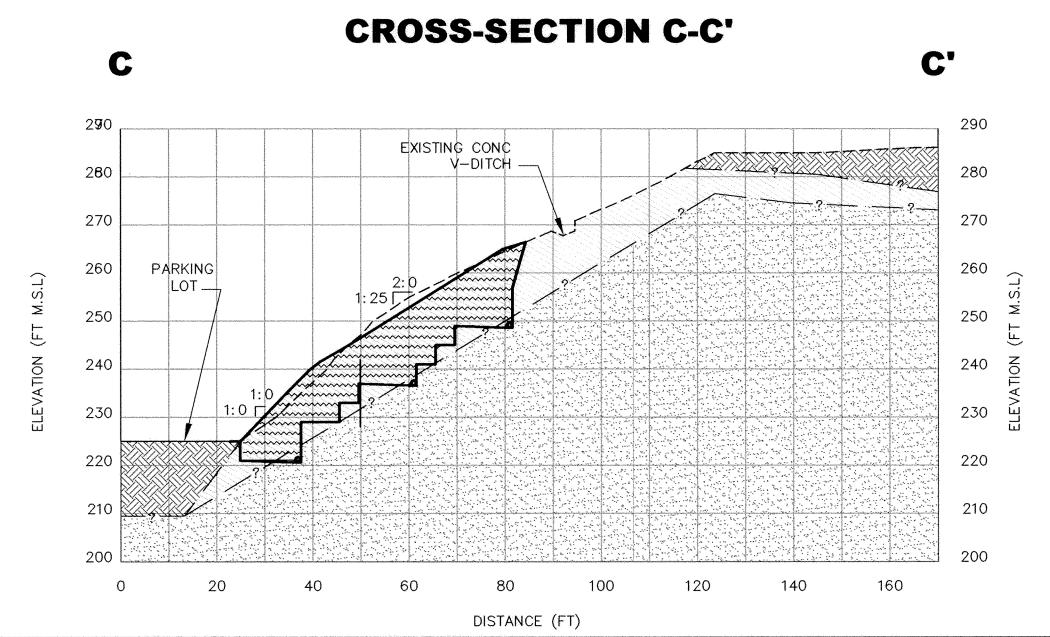


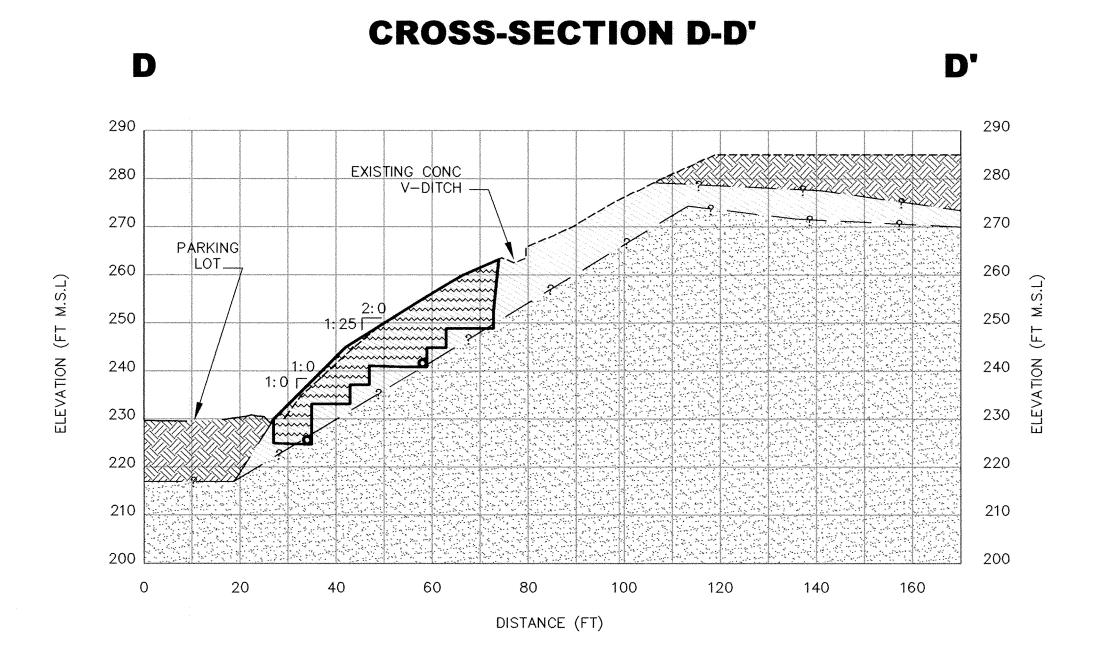


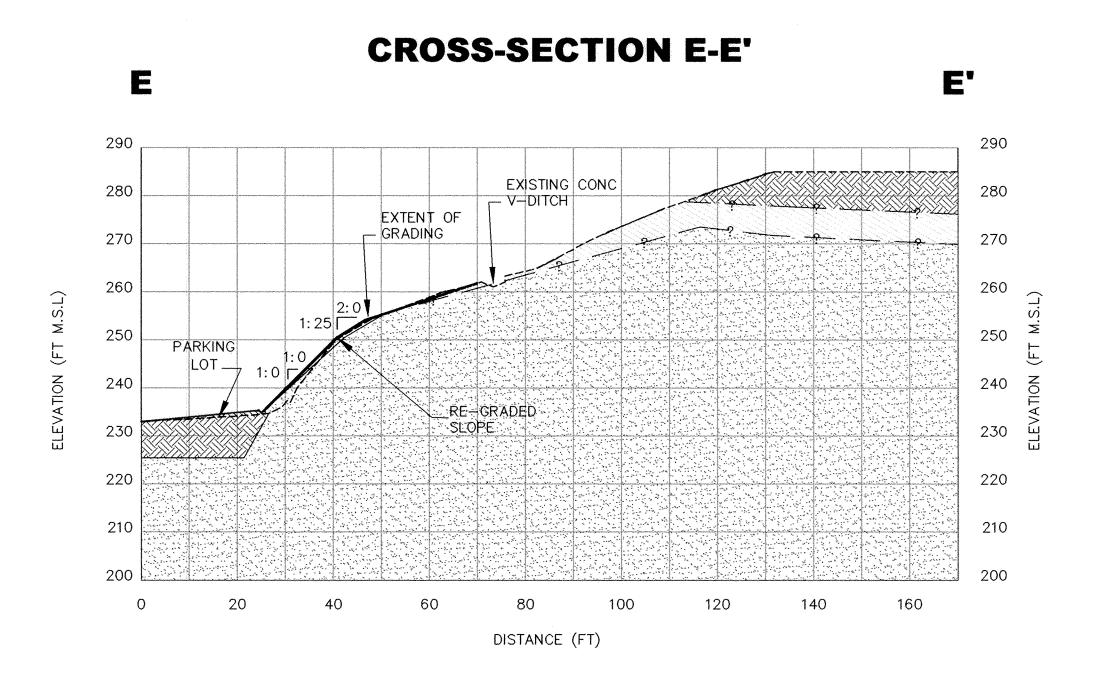












20 10 0 20 40

SCALE IN FEET

LEGEND

EXISTING SURFACE

RE-GRADED SLOPE

MALAGA FORMATION

EXISTING FILL

COLLUVIUM



REINFORCED COMPACTED FILL

NOTES:

- 1. SUBSURFACE PROFILES ARE BASED UPON GEO-TECHNICAL INVESTIGATION REPORT [LEIGHTON 2005] AS FOUND IN THE PROJECT SPECIAL PROVISION APPENDICES.
- 2. REINFORCED COMPACTED FILL, GEO-GRID MATS, SUB-DRAIN SYSTEMS, KEYING AND BENCHING AND GRADING ARE BASED UPON GEO-TECHNICAL INVESTIGATION REPORT (GEO-ENVIRONMENTAL, 2009). AS FOUND IN THE PROJECT SPECIAL PROVISION APPENDICES.
- 3. REFER TO SPECIFICATIONS FOR TYPICAL CROSS SECTION DETAILS AND MANUFACTURER SPECIFICATIONS.

REINFORCED COMPACTED FILL CROSS SECTIONS

